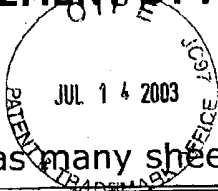


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Complete if Known	
Application Number	10/022,066
Filing Date	December 18, 2001
First Named Inventor	William Hildebrand, et al.
Group Art Unit	1643 1644
Examiner Name	J. Olson - VanderKest
Attorney Docket Number	6680.034

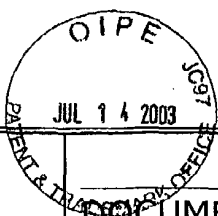
U. S. PATENT DOCUMENTS

EXAM INIT.	Cite No. 1	U.S. PATENT NUMBER								Kind Code2 (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number											
PV	AA	6	0	0	1	3	6	5		Peterson, et al.	12/14/1999	column 7, lines 18-28; column 12, lines 7-14; column 13, line 62; column 14, line 7; column 15, lines 29-45; column 19, lines 46-49; column 20, lines 29-31; column 33, lines 16-40	

FOREIGN PATENT DOCUMENTS

EXAM INIT.	Cite No. 1	Foreign Patent Document										Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number 4 (if known)												
		Kind Code5 Office 3												
PV	AA	WO	9	5	1	1	7	0	2	A	Anergen, Inc.	05/04/1995	pg. 3, lines 1-7	
PV	AB	WO	9	8	0	6	7	4	9	A	Strominger, Jack L.; Wucherpfenning Kai W (US); Harvard College (US)	02/19/1998	pg.1, lines 20- 26; pg. 18, lines 5-31; pg. 40, lines 24- 42, line 10	

W. P. VanderKest 4/5/04

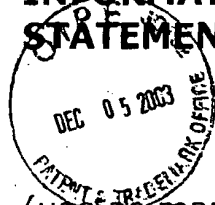


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PV	AA	HICKMAN, H.D., ET AL.: "C-terminal epitope tagging facilitates comparative ligand mapping from MHC class I positive cells" HUMAN IMMUNOLOGY, NEW YORK, NY, US, vol. 61, December 2000 (2000-12), pages 1339-1346, XP002217153 ISSN: 0198-8859 abstract page 1340, column 1, last paragraph - column 2, paragraph 2 page 1344, column 2, paragraph 1
	AB	PRILLIMAN, K, ET AL.: "LARGE-SCALE PRODUCTION OF CLASS I BOUND PEPTIDES: ASSIGNING A SIGNATURE TO HLA-B*1501" IMMUNOGENETICS, SPRINGER VERLAG, BERLIN, DE, vol. 45, no. 6, 1997, pages 379-385, XP001113058 ISSN: 0093-7711 page 380, column 2 page 382, column 2, paragraph 2 - paragraph 3
	AC	HILDEBRAND, W., ET AL.: "PRODUCTION AND APPLICATION OF INDIVIDUAL HLA PROTEIN" HUMAN IMMUNOLOGY, NEW YORK, NY, US, vol. 61, no. SUPPL 2, 2000, page S81 XP008007733 ISSN: 0198-8859 abstract
EXAMINER <i>[Signature]</i>	DATE CONSIDERED <i>4/5/04</i>	EXAMINER: Initial if citation considered, whether or not citation is in conformance and not considered. Include copy of this form with next communication to applicant. **Place of Publication refers to name of publication in which the information was published.

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Examiner Name	Not Yet Assigned VanderVegt
Attorney Docket Number	6680.034

U. S. PATENT DOCUMENTS

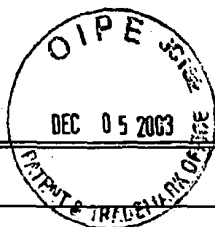
EXAM INIT.	Cite No. 1	U.S. PATENT NUMBER Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
PV	1	4,683,202		Mullis	7/28/1987	
	2	5,256,541		Pouletty et al.	10/26/1993	
	3	5,270,169		Chang et al.	12/14/1993	
	4	5,292,641		Pouletty	3/8/1994	
	5	5,482,841		Buelow	1/09/1996	
	6	5,710,248		Grose	1/20/1998	
	7	5,750,367		Chan	5/12/1998	
	8	5,776,746		Denney, Jr.	7/7/1998	
	9	5,798,209		Chan	8/25/1998	
	10	6,001,365		Peterson et al.	12/14/1999	
	11	6,255,073		Cai et al.	7/3/2001	

FOREIGN PATENT DOCUMENTS

EXAM INIT.	Cite No. 1	Foreign Patent Document	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ⁴
		Office 3 Number 4 Kind Code ⁵ (if known)				
PV	A	WO 95/11702		5/4/1995		
	B	WO 97/46256		12/11/1997		
	C	WO 98/06749		2/19/1998		
	D	WO 00/23053		4/27/2000		

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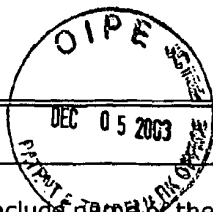


NON PATENT DOCUMENTS

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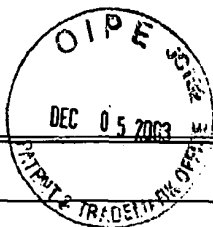
EXAM INIT.		
R	AA	"MOLECULAR CLONING A LABORATORY MANUAL", Maniatis et al., Selected Text "RNA -Dependent DNA Polymerase" p.129, "Isolation of mRNA from Mammalian Cells" pp. 191-193, Cold Harbor Spring Laboratory (1982).
	BB	"LARGE SCALE PRODUCTION OF MURINE MONOCLONAL ANTIBODIES USING HOLLOW FIBER BIOREACTORS", Evans et al., BioTechniques, 6(8):763-767 (1988).
	CC	"HIV-1 REVERSE TRANSCRIPTASE IS A TARGET FOR CYTOTOXIC T LYMPHOCYTES IN INFECTED INDIVIDUALS", Walker et al., Science, 240(4848):64-66 (1988).
	DD	"ASSEMBLY OF MHC CLASS I MOLECULES ANALYZED IN VITRO", Townsend et al., Cell, 62(6):285-295 (1990).
	EE	"ALLELE-SPECIFIC MOTIFS REVEALED BY SEQUENCING OF SELF-PEPTIDES ELUTED FROM MHC MOLECULES", Falk et al., Nature, 351(6324):290-296, (1991).
	FF	"CHARACTERIZATION OF PEPTIDES BOUND TO THE CLASS I MHC MOLECULE HLA-A2.1 BY MASS SPECTROMETRY", Hunt et al., Science, 255(5049):1261-1263 (1992).
	GG	"PEPTIDE BINDING TO HLA-A2 AND HLA-B27 ISOLATED FROM ESCHERICHIA COLI", Parker et al., The Journal of Biological Chemistry, 267(8):5451-5459 (1992).
	HH	"ENDOGENOUS PEPTIDES OF SOLUBLE MAJOR HISTOCOMPATIBILITY COMPLEX CLASS I MOLECULE, H-2Lds: SEQUENCE MOTIF, QUANTITATIVE BINDING, AND MOLECULAR MODELING OF THE COMPLEX", Corr et al., J. Exp. Med., 176(6):1681-1692 (1992).
	II	"THE SPECIFICITY AND EFFICIENCY OF ENDOGENOUS PEPTIDES IN THE INDUCTION OF HLA CLASS I ALPHA CHAIN REFOLDING", Tanigaki, Eur J. Immunol., 22(8):2177-2180 (1992).
	JJ	"CAN ONE PREDICT ANTIGENIC PEPTIDES FOR MHC CLASS I-RESTRICTED CYTOTOXIC T LYMPHOCYTES USEFUL FOR VACCINATION?", Calin-Laurens et al., Vaccine, 11(9): 974-978 (1993).
	KK	"DIRECT IDENTIFICATION OF AN ENDOGENOUS PEPTIDE RECOGNIZED BY MULTIPLE HLA-A2.1-SPECIFIC CYTOTOXIC T CELLS", Henderson et al., Proc. Natl. Acad. Sci. USA, 90:10275-10279 (1993).
	LL	"CHARACTERIZATION OF ENDOGENOUS PEPTIDES ELUTED FROM THE CLASS I MHC MOLECULE HLA-B7 DETERMINED BY MASS SPECTROMETRY AND COMPUTER MODELING", Huczko et al., J. Immunol., 151(5):2572-2587 (1993).
	MM	"FLOW-CYTOMETRIC DETERMINATION OF PEPTIDE-CLASS I COMPLEX FORMATION IDENTIFICATION OF p53 PEPTIDES THAT BIND TO HLA-A2", Zeh et al., Human Immunology, 39:79-86 (1994).
	NN	"PEPTIDE BINDING TO THE MOST FREQUENT HLA-A CLASS I ALLELES MEASURED BY QUANTITATIVE MOLECULAR BINDING ASSAYS", Sette et al., Molecular Immunology, 31(11): 813-822 (1994).
	OO	"BINDING OF A PEPTIDE ANTIGEN TO MULTIPLE HLA ALLELES ALLOWS DEFINITION OF AN A2-LIKE SUPERTYPE", del Guercio et al., J Immunol., 154(2):685-693 (1995).
	PP	"AN HLA CLASS I PEPTIDE-BINDING ASSAY BASED ON COMPETITION FOR BINDING TO CLASS I MOLECULES ON INTACT HUMAN B CELLS IDENTIFICATION OF CONSERVED HIV-1 POLYMERASE PEPTIDES BINDING TO HLA-A*0301", van der Burg et al., Human Immunology, 44:189-198 (1995).
	QQ	"MEASURING INTERACTIONS OF MHC CLASS I MOLECULES USING SURFACE PLASMON RESONANCE", Khilko et al., J. Immunol. Methods, 183(1):77-94 (1995).
	RR	"PEPTIDE MOTIFS OF HLA-B58, B60, B61, AND B62 MOLECULES", Falk et al., Immunogenetics, 41(2-3):165-168 (1995).
	SS	"AN EMPIRICAL METHOD FOR THE PREDICTION OF T-CELL EPITOPES", Davenport et al., Immunogenetics, 42(5):392-397 (1995).
	TT	"PEPTIDE MOTIFS OF HLA-B38 AND B39 MOLECULES", Falk et al., Immunogenetics, 41(2-3):162-164, (1995).
	UU	"DETAILED MOTIFS FOR PEPTIDE BINDING TO HLA-A*0201 DERIVED FROM LARGE RANDOM SETS OF PEPTIDES USING CELLULAR BINDING ASSAY", Drijfhout et al., Human Immunology, 43(1):1-12, (1995).

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EXAM INIT.		NON PATENT DOCUMENTS	
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	
A	VV	"ANALYSIS OF THE STRUCTURE OF NATURALLY PROCESSED PEPTIDES BOUND BY CLASS I AND CLASS II MAJOR HISTOCOMPATIBILITY COMPLEX MOLECULES", Appella et al., EXS., 73:105-119 (1995).	
	WW	"MAPPING AND RANKING OF POTENTIAL CYTOTOXIC T EPITOPES IN THE p53 PROTEIN: EFFECT OF MUTATIONS AND POLYMORPHISM ON PEPTIDE BINDING TO PURIFIED AND REFOLDED HLA MOLECULES", Gnjatic et al., Eur. J. Immunol., 25(6):1638-1642 (1995).	
	XX	"SIMPLIFIED HIGH-SENSITIVITY SEQUENCING OF A MAJOR HISTOCOMPATIBILITY COMPLEX CLASS I-ASSOCIATED IMMUNOREACTIVE PEPTIDE USING MATRIX-ASSISTED LASER DESORPTION/IONIZATION MASS SPECTROMETRY", Woods et al., 226(1):15-25 (1995).	
	YY	"PROBING HLA-B7 CONFORMATIONAL SHIFTS INDUCED BY PEPTIDE-BINDING GROOVE MUTATIONS AND BOUND PEPTIDE WITH ANTI-HLA MONOCLONAL ANTIBODIES", Smith et al., 157(6):2470-2478 (1996).	
	ZZ	"MASS SPECTROMETRY. IONIZATION METHODS AND INSTRUMENTATION", Chapman, Methods Mol Biol., 61:9-28 (1996).	
	aa	"HLA ALLELE SELECTION FOR DESIGNING PEPTIDE VACCINES", Kamalakar et al, Genetic Analysis: Biomolecular Engineering, 13:81-86 (1996).	
	ab	"CLASS I-RESTRICTED PRESENTATION OF AN HIV-1 gp41 EPITOPE CONTAINING AN N-LINKED GLYCOSYLATION SITE. IMPLICATIONS FOR THE MECHANISM OF PROCESSING OF VIRAL ENVELOPE PROTEINS", Ferris et al., J Immunol., 156(2):834-840 (1996).	
	ac	"EVALUATION OF HOLLOW FIBER BIOREACTORS AS AN ALTERNATIVE TO MURINE ASCITES PRODUCTION FOR SMALL SCALE MONOCLONAL ANTIBODY PRODUCTION", Jackson et al., J. Immunol. Methods, 189(2):217-231 (1996).	
	ad	"T-CELL EPITOPE DETERMINATION", Walden, Curr Opin Immunol., 8(1):68-74 (1996).	
	ae	"LARGE-SCALE PRODUCTION OF CLASS I BOUND PEPTIDES: ASSIGNING A SIGNATURE TO HLA-B*1501", Prilliman et al., Immunogenetics, 45(6):379-385 (1997).	
	af	"HLA CLASS I BINDING MOTIFS DERIVED FROM RANDOM PEPTIDE LIBRARIES DIFFER AT THE COOH TERMINUS FROM THOSE OF ELUTED PEPTIDES", Davenport et al., J. Exp. Med., 185(2): 367-371 (1997).	
	ag	"STABILITY OF EMPTY AND PEPTIDE-LOADED CLASS II MAJOR HISTOCOMPATIBILITY COMPLEX MOLECULES AT NEUTRAL AND ENDOSOMAL pH: COMPARISON TO CLASS I PROTEINS", Reich et al., Proc. Natl. Acad. Sci. USA, 94:2495-2500 (1997).	
	ah	"HUMAN PEPTIDE TRANSPORTER DEFICIENCY: IMPORTANCE OF HLA-B IN THE PRESENTATION OF TAP-INDEPENDENT EBV ANTIGENS", de la Salle et al., J. Immunol., 158(10):4555-4563 (1997).	
	ai	"A NOVEL, HIGHLY EFFICIENT PEPTIDE-HLA CLASS I BINDING ASSAY USING UNFOLDED HEAVY CHAIN MOLECULES: IDENTIFICATION OF HIV-1 DERIVED PEPTIDES THAT BIND TO HLA-A*0201 AND HLA-A*0301", Tan et al., J. Immunol. Methods, 205(2): 201-209 (1997).	
	aj	"LARGE-SCALE PRODUCTION OF CLASS I BOUND PEPTIDES: ASSIGNING A SIGNATURE TO HLA-B*1501", Prilliman et al., Immunogenetics, 45(6):379-385 (1997).	
	ak	"SYNTHETIC PEPTIDES BASED ON CHLAMYDIA TRACHOMATIS ANTIGENS IDENTIFY CYTOTOXIC T LYMPHOCYTE RESPONSES IN SUBJECTS FROM A TRACHOMA-ENDEMIC POPULATION", Holland et al., Clin. Exp. Immunol., 107(1):44-49 (1997).	
	al	"COMPLEXITY AMONG CONSTITUENTS OF THE HLA-B*1501 PEPTIDE MOTIF", Prilliman et al., Immunogenetics, 48:89-97 (1998).	
	am	"A MICROCAPILLARY COLUMN SWITCHING HPLC- ELECTROSPRAY IONIZATION MS SYSTEM FOR THE DIRECT IDENTIFICATION OF PEPTIDES PRESENTED BY MAJOR HISTOCOMPATIBILITY COMPLEX CLASS I MOLECULES", van der Heeft et al., Anal. Chem., 70:3742-3751 (1998).	
	an	"SYNTHETIC PEPTIDES OF HUMAN PAPILLOMAVIRUS TYPE 18 E6 HARBORING HLA-A2.1 MOTIF CAN INDUCE PEPTIDE-SPECIFIC CYTOTOXIC T-CELLS FROM PERIPHERAL BLOOD MONONUCLEAR CELLS OF HEALTHY DONORS", Yoon et al., Virus Research, 54:23-29 (1998).	
	ao	"MHCPEP, A DATABASE OF MHC-BINDING PEPTIDES: UPDATE 1997", Brusica et al., Nucleic Acids Research, 26(1): 368-371 (1998).	

[Signature] 4/5/04



EXAM INIT.	NON PATENT DOCUMENTS	
	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	
<i>R</i>	ap	"PREDICTION OF MHC CLASS II-BINDING PEPTIDES USING AN EVOLUTIONARY ALGORITHM AND ARTIFICIAL NEURAL NETWORK", Brusic et al., Bioinformatics, 14(2): 121-130 (1998).
	aq	"EFFICIENT GENERATION OF MAJOR HISTOCOMPATIBILITY COMPLEX CLASS I-PEPTIDE COMPLEXES USING SYNTHETIC PEPTIDE LIBRARIES", Stevens et al., The Journal of Biological Chemistry, 273(5):2874-2884 (1998).
	ar	"NEURAL NETWORK-BASED PREDICTION OF CANDIDATE T-CELL EPITOPES", Honeyman et al., Nat. Biotechnol., 16(10): 966-969 (1998).
	as	"DIRECT IDENTIFICATION OF MAJOR HISTOCOMPATIBILITY COMPLEX CLASS I-BOUND TUMOR-ASSOCIATED PEPTIDE ANTIGENS OF A RENAL CARCINOMA CELL LINE BY A NOVEL MASS SPECTROMETRIC METHOD", Flad et al., Cancer Research, 58(24):5803-5811 (1998).
	at	"STRUCTURE AND FUNCTION OF A MEMBRANE-BOUND MURINE MHC CLASS I MOLECULE", Celia et al., Proc. Natl. Acad. Sci. USA, 96:5634-5639 (1999).
	au	"IDENTIFICATION OF HLA-A3 AND -B7-RESTRICTED CTL RESPONSE TO HEPATITIS C VIRUS IN PATIENTS WITH ACUTE AND CHRONIC HEPATITIS C", Chang et al., J. Immunol., 162(2):1156-1164 (1999).
	av	"HLA-B15 PEPTIDE LIGANDS ARE PREFERENTIALLY ANCHORED AT THEIR C TERMINI", Prilliman et al., J. Immunol., 162(12):7277-7284 (1999).
	aw	"STRUCTURE AND FUNCTION OF A MEMBRANE-BOUND MURINE MHC CLASS I MOLECULE", Proc. Natl. Acad. Sci. USA, 96:5634-5639 (1999).
	ax	"ALPHA-2 DOMAIN POLYMORPHISM AND HLA CLASS I PEPTIDE LOADING", Prilliman et al., Tissue Antigens, 54(5):450-460 (1999).
	ay	"SYFPEITHI: A DATABASE FOR MHC LIGANDS AND PEPTIDE MOTIFS", Rammensee et al., Immunogenetics, 50:213-219 (1999).
	az	"PEPTIDE MOTIF OF THE CLASS I MOLECULE HLA-B*1503", Prilliman et al., Immunogenetics, 49:144-146 (1999).
	ba	"CLAD AGAINST ALL CLADES- CAN VACCINOMICS BUILD A WORLD HIV VACCINE?", Hollon, The Scientist, 14(18):1 (2000).
	bb	"HUMAN IMMUNOLOGY- 26 TH ANNUAL ASHI MEETING ABSTRACTS 2000", 61: Supplement 2 (2000).
	bc	"C-TERMINAL EPI TOPE TAGGING FACILITATES COMPARATIVE LIGAND MAPPING FROM MHC CLASS I POSITIVE CELLS", Hickman et al., Human Immunology, 61:1339-1346 (2000).
	bd	"PRODUCTION AND APPLICATION OF INDIVIDUAL HLA PROTEIN", Hildebrand et al., Human Immunology, abstract, vol. 61, no. SUPPL 2, page S81 XP008007733 (2000).
	be	"FIMM, a database of functional molecular immunology", C Schonbach et al., Nucleic Acids Research, vol. 28, no. 1, January 2000 (2000-01), pages 222-224, XP002242984 Oxford, UK figure 1; table 1
	bf	"RAPID DETERMINATION OF HLA B*07 LIGANDS FROM THE WEST NILE VIRUS NY99 GENOME", De Groot et al., Emerging Infectious Diseases, 7(4):706-713 (2001).
	bg	"EXAMINATION OF POSSIBLE STRUCTURAL CONSTRAINTS OF MHC-BINDING PEPTIDES BY ASSESSMENT OF THEIR NATIVE STRUCTURE WITHIN THEIR SOURCE PROTEINS", Schueler-Furman et al., PROTEINS: Structure, Function, and Genetics, 45:47-54 (2001).
	bh	"USE OF FLUORESCENCE POLARIZATION TO MONITOR MHC-PEPTIDE INTERACTIONS IN SOLUTION", Dedier et al., Journal of Immunological Methods, 255:57-66 (2001).
	bi	"PEPTIDE/MHC MONOMERS CAN BE INSERTED INTO ARTIFICIAL LIPID BILAYERS AS ARTIFICIAL ANTIGEN PRESENTATION CONSTRUCTS", Jiang et al., Section of Transplantation Immunology, BMT Department, M.D. Anderson Cancer Center, Houston, Texas, Abstract # 2126 (2001).
	bj	"NEURAL NETWORK METHOD FOR PREDICTING PEPTIDES THAT BIND MAJOR HISTOCOMPATIBILITY COMPLEX MOLECULES", Gulukota et al., Methods Mol. Biol., 156:201-209 (2001).

Non Patent Documents: ¹ Unique Citation Designation Number. ² Applicant is to place a check mark here if English language Translation is attached.

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